

Fortunately, the beak, one antenna and half of a wing were intact enough to identify the roaming creature as a Hemiptera ("true bug"), probably a damsel bug, belonging to the family Nabidae, genus *Abis*. This bug has the same general shape, although smaller size, as the dreaded kissing and assassin bugs. The damsel bug is a common predator of small insects, such as aphids and caterpillars and is often found in grassland areas. The patient undoubtedly acquired this inadvertent hijacker during their forced cohabitation of the roadside field.

Several important lessons are revealed by this case. First, despite thorough physician prepping and hygienic efforts for the patient, completely sterile conditions are not always achievable in the operating room, especially when dealing with trauma or emergency operations. Fortunately, with the use of prophylactic antibiotics, this insect probably transmitted no infection, despite the millions of bacteria, belonging to hundreds of species, which have been found to cover a single insect.<sup>2</sup>

Finally, it is well recognized that few of even the most common insects seen by laypersons are identified correctly. Without the necessary appendages, the insect in this case may not have been distinguishable from other more serious pests. Therefore, it is valuable to save for proper identification any questionable arthropod, just as one would send for histologic confirmation most "probably benign" subcutaneous nodules. If an arthropod is to be identified, make sure it is reasonably intact; even the most experienced entomologists have difficulty when presented with disarticulated "bugs," or mere remnants thereof.

RONALD A. SHERMAN, MD  
Department of Internal Medicine  
JAMES SPIEGEL, MD  
Department of Orthopedics  
REGINA F. GANDOUR, MD  
Department of Pathology  
University of California, Davis,  
Medical Center  
Sacramento, CA 95817

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## Asthma and Urticaria After Hepatitis B Vaccination

TO THE EDITOR: In accordance with the recommendation of the Centers for Disease Control,<sup>1</sup> 20 µg of plasma-derived hepatitis B vaccine (Heptavax-B, lot 2445H) was administered to a serosusceptible 31-year-old employee in a high-risk occupation. Within 30 minutes generalized pruritus, dyspnea, urticaria and infraorbital edema developed. Ex-

tensive expiratory rhonchi were present in both lungs. She was given 0.3 ml epinephrine 1:1,000 dilution subcutaneously. Her symptoms only partially resolved, and the same dose of epinephrine had to be repeated four hours later. She was prescribed diphenhydramine hydrochloride, 25 mg as needed, and hydroxyzine hydrochloride, 25 mg at bedtime. This led to significant relief the next day. The patient had a leukocyte count of 8,500 per µl with 12% eosinophils and a raised total serum immunoglobulin E level. On questioning, she revealed that she had experienced a similar but less severe reaction to the vaccine's first dose four weeks earlier, when dyspnea and generalized itching developed, which were relieved by an injection of diphenhydramine by her personal physician. She had totally forgotten the link between the vaccine and the reaction. She said she did not have other allergen exposures such as bee sting, new perfume, new clothes, chemical exposures or the like.

The patient has not been given the third dose of vaccine. She has remained negative for hepatitis B surface antibody and has not acquired the hepatitis B core antibody or hepatitis B surface antigen while continuing in her employment. She had a history of bronchial asthma and allergy to sulfonamides but no history of atopic dermatitis, allergic rhinitis or urticaria. She had been asymptomatic for several days before both vaccine doses.

Heptavax-B contains inactivated hepatitis B surface antigen, an alum adjuvant and thimerosal, a preservative. Based on a literature review, thimerosal was considered to be the inciting allergen in this case. Thimerosal has produced ocular allergy through contact lens solution<sup>2</sup> and eye cream<sup>3</sup> as well as cutaneous and system allergy.<sup>4-6</sup> Caution should be exercised in administering Heptavax-B to persons allergic to other vaccines or medicines containing thimerosal. Thimerosal is also present in the yeast-derived hepatitis B vaccine (Recombivax-HB).

GHANSHYAM LOHIYA, MD  
Chief, Infectious Disease Section  
State Developmental Research Institutes  
2501 Harbor Blvd  
Costa Mesa, CA 92626

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